ELSEVIER

Journal of Magnetism and Magnetic Materials 284 (2004) v–vii

Journal of magnetism and magnetic materials

www.elsevier.com/locate/jmmm

JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS

Editorial Board (*: Editor section Information Storage: Basic and Applied)

Editor-in-Chief

A.J. FREEMAN
Department of Physics and Astronomy, Northwestern University, Evanston, IL 60208-3112, USA

Tel.: +1-847-491-3343
Fax: +1-847-491-5082
E-mail: art@freeman.phys.nwu.edu

Editors

S.D. BADER
Material Sciences Division, Argonne National Laboratory, Argonne, IL 60439-4845, USA

Tel.: +1-630-252-5203
Fax: +1-630-252-5219
E-mail: jmmm@anl.gov

R.W. CHANTRELL*
Seagate Technology LLC, 1251 Waterfront Place, 3rd Floor, Pittsburgh, PA 15222-4215, USA

Tel.: +1-412-918-7019
Fax: +1-412-918-7032
E-mail: roy.w.chantrell@seagate.com

D. GIVORD
Laboratoire Louis Néel, BP 166, 30842 Grenoble, Cedex 9, France

Tel.: +33-4-7688-1090
Fax: +33-4-7688-1191
E-mail: jmmm_givord@grenoble.cnrs.fr

Advisory Editors

B. ANTONINI
Dipartimento di Fisica, Università di L'Aquila, I-67010 Coppito, Italy

A. ARROTT
Simon Fraser University, Physics Department, Burnaby, BC, Canada V5A 1S6

D.D. AWSCHALOM
Department of Physics, University of California–Santa Barbara, Santa Barbara, CA 63106, USA

J.G. BOOTH**
Physics Department, Joule Laboratory, Salford University, Salford M5 4WT, UK

J.I. BUDNICK
Department of Physics, University of Connecticut, Storrs, CT 06268, USA

K.H.J. BUSCHOW
Natuurkundig Laboratorium der Universiteit van Amsterdam, Valckenierstraat 65, 1018 XE Amsterdam, The Netherlands

I.A. CAMPBELL**
Laboratoire des Verres, Bâtiment 13, Université Montpellier II, 34095 Montpellier Cedex 05, France

J.N. CHAPMAN*
Department of Physics and Astronomy, Glasgow University, Glasgow G12 8QQ, Scotland

J.M.D. COEY
Department of Pure and Applied Physics, Trinity College, University of Dublin, Dublin 2, Ireland

E.D. DAHLBERG
Department of Physics, Magnetic Microscopy Center, University of Minnesota, 116 Church Street SE, Minneapolis, MN 55455, USA

D.M. EDWARDS
Department of Mathematics, Imperial College of Science and Technology, Huxley Building, 180 Queen's Gate, London SW7 2BZ, UK

A. FERT,
Unité de Physique, CNRS, Thales et Université Paris-Sud XI, Domaine de Corbeville, 91404 Orsay Cedex, France

D. FIORANI
Istituto di Struttura dell Materia, CNR - Area della Ricerca di Roma, C.P. 10 - 00016 Monterotondo Stazione, Rome, Italy

J.J.M. FRANSE
Natuurkundig Laboratorium der Universiteit van Amsterdam, Valckenierstraat 65, 1018 XE Amsterdam, The Netherlands

F.J. FRIEDLAENDER
Purdue University, School of Electrical Engineering, Electrical Engineering Building, West Lafayette, IN 47907, USA

H. FUJIMORI**
Institute for Materials Research, Tohoku University, Katahira 2-1-1, Sendai 980, Japan

E.E. FULLERTON
IBM Almaden Research Center K63-ES, 650 Harry Road, San José, CA 95120-6001, USA

K.A. GSCHNEIDNER, Jr.
Ames Laboratory, US Department of Energy, Iowa State University, Ames, IA 50011, USA

J. KIRSCHNER
Max-Planck-Institut für Mikrostrukturphysik, Weinberg 2, D-06120 Halle/Saale, Germany

J.S. KOUVEL***
Department of Physics, University of Illinois at Chicago, Box 4348/M/C273, Chicago, IL 60680, USA

H. KRONMÜLLER
Institut für Physik, Max-Planck-Institut für Metallforschung, Postfach 800665, D-70506 Stuttgart, Germany

M.H. KRYDER*
Seagate Technologies, 2403 Sidney St., Pittsburgh, PA 15203-2116, USA

J.C. LODDER*
Electrical Engineering, Transducers and Materials Science, University of Twente, P.O. Box 217, 7500 AE Enschede, The Netherlands

F.E. LUBORSKY
Research & Development, General Electric Co., 123M, K-1, Schenectady, NY 12301, USA

S. MAEKAWA
Institute for Materials Research, Tohoku University, Sendai 4980-8577, Japan

S. METHFESSEL***
Ruhr-Universität Bochum, Fakultät für Physik and Astronomie, Institut für Experimentalphysik IV, Postfach 102148, W-4630 Bochum 1, Germany

Y. NAKAMURA*
Research Institute of Electrical Communication, 2-1-1 Katahira, Aoba-ku, Sendai 980, Japan

M. NAOE
Department of Physical Electronics, Tokyo Institute of Technology, 2-12-1 0-Okayama, Meguto, Tokyo 152-8552, Japan

**Senior Advisory Editor.

***Emeritus Advisory Editor.

V.I. OZHOGIN**
Kurchatov Institute of Atomic Energy, Kurchatov Square 2, 123182 Moscow, Russian Federation

A. PETFORD-LONG
Department of Materials, University of Oxford, Holder Building, Rm 21, Parks Road, Oxford OX1 3PH, UK

D. PIERCE
Electron Physics Group, National Institute of Standards and Technology, Bldg 220, Rm B-206, Gaithersburg, MD 20899, USA

F.E. PINKERTON
Physics Department, General Motors Research and Development Center, 30500 Mound Road, Box 9055, Warren, MI 48090-9055, USA

J.L. PORTESEIL
Centre National de la Recherche Scientifique, Laboratoire de Magnétisme Louis Néel, 25, avenue des Martyrs, BP 166, 38042 Grenoble cedex 9, France

G. PRINZ
Naval Research Laboratories, Condensed Matter & Science Division, Code 4600, Washington, DC 20375-5000, USA

J.J. RHYNE
Lujan Neutron Scattering Center, MS H805, Los Alamos National Laboratory, Los Alamos, NM 87545, USA

I.K. SCHULLER
Thin Film Laboratory, Department of Physics, University of California – San Diego, La Jolla, CA 92093-0319, USA

T. SHINJO
Institute for Chemical Research, Kyoto University, Uji, Kyotofu, 611 Japan

J.C. SLONCZEWSKI
Thomas Watson Research Center, P.O. Box 218, Yorktown Heights, NY 10598, USA

D.E. SPELIOTIS
ADE Technologies, Inc., 77 Rowe Street, Newton, MA 02166, USA

R. SPERLING
Department of Genetics, Faculty of Mathematics & Natural Sciences, The Hebrew University of Jerusalem, Givat Ram, Jerusalem 91904, Israel

T. SUZUKI
Information Storage Materials Research Laboratory, Toyota Technological Institute, 2-12-1, Hisakata, Tenpaku-ku, Nagoya 468-8511, Japan

H. SZYMCZAK
Institute of Physics, Polish Academy of Sciences, al. Lotników 32/46, 02-668 Warsaw, Poland

V.V. USTINOV
Institute of Metal Physics, Ural Division, Russian Academy of Sciences, 18 S. Kovalevskaya St., GSP-170 Ekaterinburg, 620219, Russia

J. ZHU
Department of Electrical and Computer Engineering, Carnegie Mellon University, Pittsburgh, PA 15213-3890, USA

ELSEVIER

Volume 284, December II 2004

journal of magnetism and magnetic materials

www.elsevier.com/locate/jmmm

CONTENTS

Abstracted/Indexed in: Current Contents: Physical, Chemical & Earth Sciences, Mathematical Reviews, PASCAL, Science Citation Index, Zentralblatt für Mathematik.

Letters to the Editor

J.E. Shield, Y. Liu and R. Marr
Novel nanostructures in microalloyed Pr-Fe-B nanocomposite permanent magnets L1

E.V. Sampathkumaran, Z. Hiroi, S. Rayaprol and Y. Uwatoko
Heat-capacity anomalies in the presence of high magnetic fields in the spin-chain compound, $Ca_3Co_2O_6$ L7

Regular papers

Y. Wang, H. Shao, X. Li, L. Zhang and S. Takahashi
Mictomagnetism and shifted magnetic hysteresis cycle in SmFeAl 13

A. Butera, J.L. Weston and J.A. Barnard
Ferromagnetic resonance of epitaxial $Fe_{81}Ga_{19}(1\,1\,1\,0)$ thin films 17

K.W. Geng, T. He, G.H. Yang and F. Pan
Hexagonal iron formation in Fe/Ru multilayers and its magnetic properties 26

Y.G. Zhao, R. Fan, X.P. Zhang, H. Balci, S.B. Ogale, T. Venkatesan, T.K. Mandal and J. Gopalakrishnan
Insulator–metal transition and magnetoresistance of oxygen deficient $La_{0.35}Ca_{0.65}MnO_y$ 35

M. Očko, J.L. Sarrao and Ž. Šimek
Thermopower of the $YbIn_{1-x}Ag_xCu_4$ alloy system: what does the thermopower minimum reflect in $YbIn_{1-x}Ag_xCu_4$? 43

Y.-Q. Liang, G.-Z. Wei, Q. Zhang, Z.-H. Xin and G.-L. Song
Phase diagram and tricritical behavior of a spin-$\frac{3}{2}$ transverse Ising model in a random field 47

P.N. Kaloni and J.X. Lou
Weakly nonlinear instability of a ferromagnetic fluid rotating about a vertical axis 54

V. Vystavkina, G. Brekharya, E. Vasil'yeva and M. Leonowicz
Magnetic properties and microstructure of Nd–Fe–B–C magnets with Cu addition 69

T. Boudiar, B. Payet-Gervy, M.-F. Blanc-Mignon, J.-J. Rousseau, M. Le Berre and H. Joisten
Magneto-optical properties of yttrium iron garnet (YIG) thin films elaborated by radio frequency sputtering 77

X. Liang, J. Ferenc, T. Kulik, A. Slawska-Waniewska and B. Xu
Effect of the substitution of Fe by Co on the magnetic properties and microstructure of nanocrystalline $(Fe_{1-x}Co_x)_{86}Hf_7B_6Cu_1$ alloys 86

P. Léone, G. André, C. Doussier and Y. Moëlo
Neutron diffraction study of the magnetic ordering of jamesonite ($FePb_4Sb_6S_{14}$) 92

P. Schobinger-Papamantellos, C. Wilkinson, L.D. Tung, K.H.J. Buschow and G.J. McIntyre
Neutron-diffraction study of the magnetic structure of $PrCoAl_4$ 97

P.C. Fannin, C.N. Marin, V. Socoliuc and G.M. Istrătucă
Investigation of particle agglomeration in un-polarized magnetic fluids by means of magnetic resonance measurements 104

C.-H. Peng, H.-W. Wang, S.-W. Kan, M.-Z. Shen, Y.-M. Wei and S.-Y. Chen
Microwave absorbing materials using Ag–NiZn ferrite core–shell nanopowders as fillers 113

E. Sağiroğlu, E. Duman, Y. Elerman and M. Acet
Ferrimagnetism of $Dy(Mn_{1-x}Co_x)_6Sn_6$ 120

Continued on last page of issue

Also available on
SCIENCE DIRECT®
www.sciencedirect.com

0304-8853(200412)284:C;1-G

T.S. Yoon, T. Shoyama, Y.W. Lee, M. Tsunoda, M. Takahashi, D.Y. Kim and C.O. Kim
Local transport properties of Co-Fe/Al-O/Co-Fe tunnel junctions with high thermal stability 330

Y. Ding, S.A. Majetich, J. Kim, K. Barmak, H. Rollins and P. Sides
Sintering prevention and phase transformation of FePt nanoparticles 336

T. Nozawa, F. Morimoto, R. Harazono, A. Otani and N. Nouchi
Effect of magnetic anisotropy on soft magnetization of Fe, $Fe_{50}Co_{50}$ and $Fe_{70}Co_{30}$ films 342

A. Lakshman, P.S.V.S. Rao and K.H. Rao
Mossbauer spectroscopic analyses of $Mg_{0.9}$ $Mn_{0.1}$ In_x Fe_{2-x} O_4 spinel ferrites 352

J.P. Xu, S.P. Liu, G.X. Guo, C.M. Zhen, G.D. Tang, H.Y. Sun and X.F. Nie
Influence of in-plane field on vertical Bloch line in the walls of the second kind of dumbbell domains at various temperatures 358

B.V. Raghavaiah, D.K. Rao and N. Veeraiah
Magnetic properties of PbO–Sb_2O_3–As_2O_3 glasses containing iron ions 363

T. Tachibana, T. Nakagawa, Y. Takada, T. Shimada and T.A. Yamamoto
Influence of ion substitution on the magnetic structure and permeability of Z-type hexagonal Ba-ferrites: $Ba_3Co_{2-x}Fe_{24+x-y}Cr_yO_{41}$ 369

J. Prasongkit and I.M. Tang
Exchange interactions in the intermetallic compounds $GdCo_{4-x}Ni_xAl$ 376

S. Mollah, H.L. Huang, H.D. Yang, S. Pal, S. Taran and B.K. Chaudhuri
Non-adiabatic small-polaron hopping conduction in $Pr_{0.65}Ca_{0.35-x}Sr_xMnO_3$ perovskites above the metal–insulator transition temperature 383

M.A. Hakim and S.M. Hoque
Effect of structural parameters on soft magnetic properties of two phase nanocrystalline alloy of $Fe_{73.5}Cu_1Ta_3Si_{13.5}$ B_9 395

M. Matsushita, Y. Nakamoto, E. Suzuki, Y. Miyoshi, H. Inoue, S. Endo, T. Kikegawa and F. Ono
The lattice softening and the crystal structure of Fe–Pt Invar alloys under high pressures 403

C. Ekiz
The antiferromagnetic spin-$\frac{3}{2}$ Blume–Capel model on the Bethe lattice using the recursion method 409

U. Topal, H. Ozkan and H. Sozeri
Synthesis and characterization of nanocrystalline $BaFe_{12}O_{19}$ obtained at 850 °C by using ammonium nitrate melt 416

Information Storage: Basic and Applied

J.S. Chen and J.P. Wang
Structural and magnetic properties of FePt film with Cu top layer diffusion 423

Author index to volume 284 430

Subject index to volume 284 434

CONTENTS direct

This journal is part of **ContentsDirect**, the ***free*** alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: **http://contentsdirect.elsevier.com**